



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

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Cristopher R. Anderson, Manager
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25 OCT 1990

Dear Mr. Anderson:

Re: L.E. Carpenter Amended ACO 9/26/90
 Comments of Interim Draft Development of Alternative for
 Feasibility Study Submittal, Dated September 28, 1990

As you requested, the New Jersey Department of Environmental Protection (Department/DEP) and the U.S. Environmental Protection Agency (USEPA) have reviewed the interim draft of the Development of Alternatives for the Feasibility Study on the L.E. Carpenter project and are providing comment on the text below. The Department does not request a resubmittal at this time but if L.E. Carpenter desires a meeting can be held to discuss these comments.

Comments

Page 1-1 1. Introduction
 The "FS Development of Alternatives" document states that the primary objective of the FS for the L.E. Carpenter site is to determine an environmentally sound and cost effective remedial action alternative(s) for the site.

Be advised that according to CERCLA guidance, the purpose of the FS is to ensure that the appropriate remedial action alternative(s) are developed and evaluated. In the case of state leads, the appropriate remedy will be selected by the State based on the conclusions of the FS.

Page 1-7 2. Findings of the Remedial Investigation
 The document states that two monitor well clusters (MW 13 and 14) installed on the Air Products property and the Wharton Enterprises property and downgradient of the former impoundment and tank farm areas, did not indicate the presence of volatile compounds (VOCs) from the site in the ground water.



Contrary to the above statement and previous statements in the RI, VOCs have been detected in samples taken from MW 13s, which may be site related. Also, it has been claimed that contaminated ground water from the L.E. Carpenter site is discharging to the drainage ditch on the Air Products property.

Based on these findings it is not appropriate to conclude that there is no off-site migration of VOC contamination in the ground water as suggested in this document and in the "Revised Report of Remedial Investigation Findings, Volume 1, June 1990", page 13, para. 6.

- Page 1-8 3. Paragraph 4
L.E. Carpenter states the Rockaway River is a losing stream in the vicinity of the site and does not appear to be gaining ground water contaminants. As was pointed out in a comment on the Revised Report of Remedial Investigations Findings, June 1990, natural ground water flow maybe toward the Rockaway River under some hydrogeologic conditions and such conditions may explain the presence of base neutral (BN) contaminants in the river sediments. The statement should be modified accordingly.
- Page 1-11 4. Figure 1-5
L.E. Carpenter should modify the figure, using a dashed line, to indicate the possibility of direct ground water flow to the Rockaway River per previous comment.
- Page 2-1 5. Remedial Action Objectives
The document states that the contaminants of concern at the site have been identified as DEHP, xylene, ethylbenzene, lead, chromium, cadmium and PAHs.

The RI also identified PCB's and methylene chloride as contaminants of concern. These chemicals must be included in the Baseline Risk Assessment, or a justification must be presented to explain why these chemicals have been deleted.
- Page 2-2 6. Although existing drinking water sources do not appear to have been adversely affected by the site, the contamination from the site has affected a potential drinking water source i.e., the currently contaminated ground water underlying the site, which is a potential source of drinking water. EPA guidance makes it clear that Federal and State drinking water regulations are "relevant and appropriate requirements" for this scenario. (See Page 5-3 in Part I of the CERCLA Compliance with Other Laws Manual, dated August 8, 1988, for further explanation). The report should make it clear that promulgated Federal and State drinking water regulations are ARARs for ground water, to the extent that they are not superseded by any other cleanup standards which are more stringent.

- Page 2-3 7. Table 2-1
This table details the ARAR's developed for the site. The table should be modified, however, to include the latest ARAR's submitted by the Department.
- Page 2-9 8. While Ambient Water Quality Criteria (AWQCs) may be ARARs, they are not "applicable" requirements. AWQCs were developed by EPA as advisories to be used by states in establishing state water quality standards. AWQCs are likely to be relevant and appropriate if a state does not have an adequately protective water quality standard for a particular contaminant. If the listing in Section 2.2.4 is intended to include all sources of chemical specific ARARs, Federal and State drinking water regulations should be included in the listing. If the intent is only to include "applicable" requirements, then the AWQCs should be deleted. Part I of the CERCLA Compliance with Other Laws Manual provides further discussion of the distinction between "applicable" and "relevant and appropriate" requirements.
- Page 2-10 9. Table 2-4
This table should be titled "NJDEP Soil Action Levels" not "NJDEP Soil Cleanup Objectives".
- Although these action levels are not promulgated regulations (as stated in the "FS Development of Alternatives" document), they are "To Be Considered" cleanup goals for the site and as such, they are ARAR's.
- Page 3-3 10. Soil, para. 2
Sufficient soil data is not available to determine the extent of PCB contamination at the L.E. Carpenter site. Therefore, pending results of the supplemental soil sampling at the suspected contaminated areas, PCB remediation should be included as part of the general response action for soils. If the supplemental sampling data determines the PCB levels to be below soil action levels or non-detect, then the soil response action for PCB's may be eliminated.
- Page 3-4 11. Paragraph 4
L.E. Carpenter states ground water may be collected by active means (extraction wells) or passive means such as interceptor trenches. Interceptor trenches would be difficult to modify (expensive) as site conditions change due to hydrogeologic factors or as the cleanup progresses.
- Page 3-5 12. Paragraph 1
L.E. Carpenter states sediments from the Rockaway River did not contain elevated levels of contaminants. Table 24 of the June 1990 Revised RI Report indicates elevated BN levels at all sampling locations, except the background sample. Levels range from 91 ppm to 130 ppm. The action limit for these compounds is 10 ppm. Accordingly, L.E. Carpenter should modify this statement.
- Page 4-7 13. It appears that the narrative in Section 4.2.3 belongs in

Section 4.3.3. Since Sections 4.2.3.1 and 4.2.3.2 deal with containment measures applied at the site surface, a new narrative in Section 4.2.3 should be added to deal with this subject matter.

Page 4-8 14. Capping

Although the capping alternatives may be included in the review of the remedial technologies for soils at the L.E. Carpenter site, it's effectiveness in preventing the migration of soil contamination to the ground water is questionable. In this case, the high water table and soil permeability at the site would favor a remedial action that permanently and significantly reduces the volume of contamination in the site soils.

Page 4-11 15. The mechanism of soil washing can involve more than the solubilization of contaminants, which is the only mechanism discussed in this section. For some soil/contaminant/washing fluid combinations, the chief mechanism of soil cleaning will involve the washing of fine soil particles from coarser soil particles. In the case of the L.E. Carpenter site, the soil is predominantly coarse sand and gravel with a small amount of silt. A large portion of the contamination may, however, be associated with the silt particles to which contaminants are likely to adhere. Washing the fine silt particles from the sand and gravel may leave a relatively clean sand and gravel. The used washing fluid (probably containing both suspended and dissolved contaminants) would be likely to require further treatment.

Page 4-24 16. 3rd Paragraph

L.E. Carpenter states in-situ vapor extraction (ISV) will not be retained for further consideration because it is ineffective on semivolatiles. This statement is true but the primary contaminants, xylene and ethylbenzene, are volatiles, not semivolatiles. Accordingly, ISV should be further considered in the development of remediation alternatives at the site. This technique is often used in conjunction with other remedial technologies.

page 4-29 17. Ground Water Treatment at Point of use

The document states that point-of-use treatment would be made available to affected ground water users.

The "Remedial Investigation Report, June 1990" states that three domestic wells exist within one mile, downgradient of the site. The Department is still awaiting a report on the current status of these private wells.

Page 4-33 18. There appears to be an error on the eighth line from the bottom of the page. Shouldn't it say that the floating product intake floats on water, rather than on oil? Please correct or explain.

Page 4-34 19. The discussion on this page mentions that recovery wells which lower the water table will, in addition to collecting contaminated ground water, also can accelerate the collection

of floating product. There is, however, a potential disadvantage of lowering the water table. As a result of the lowering of the water table under the floating product, deeper soils which have not previously contacted floating product will be exposed. Once these soils become saturated with floating product, they also may be a source of contaminated leachate for an extended period of time. While a recovery well system can be designed to prevent excessive horizontal and vertical movement of floating product, this potential disadvantage of recovery wells should be noted.

Page 4-34 20. Paragraph 3

L.E. Carpenter states the cone of depression would be narrow if extraction wells were installed for remediation. The Department believes, however, that with the permeable nature of the surficial aquifer and the resultant high transmissivity, the cone would be expected to be wide and shallow. L.E. Carpenter must consider all implications in the selection of this alternative if it is their chosen methodology.

Page 4-42 21. Membrane Separation

Membrane separation should be retained and considered as part of a possible treatment train for groundwater remediation. Membrane Separation has demonstrated success in removing dissolved metals and other dissolved solids, from aqueous solutions and may be beneficial in combination with other treatment technologies that favor removal of organics.

Should you have any questions concerning these comments you may contact me at (609) 633-1455. Also, if a meeting is desired contact me at this number to establish a date and time for a Trenton meeting site.

Very truly yours,



Edgar G. Kaup, P.E. Case Manager
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kj

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